DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-000570
Date Inspected: 02-Oct-2007

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 630
OSM Departure Time: 1530
Location: Shanghai, China

CWI Name: Xu Bing

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Mock Up/Verify Production Plate

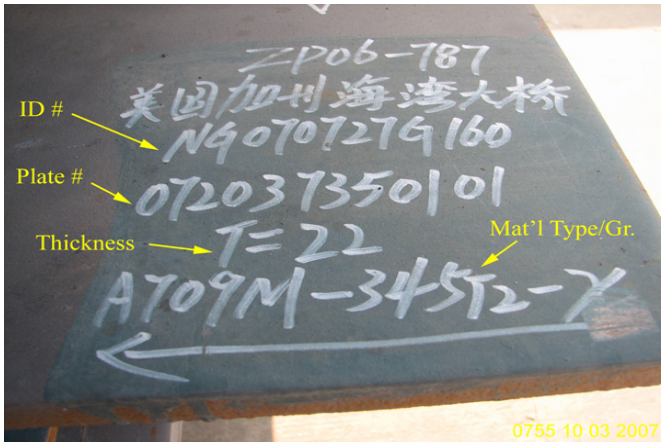
Summary of Items Observed:
Elevation 114:

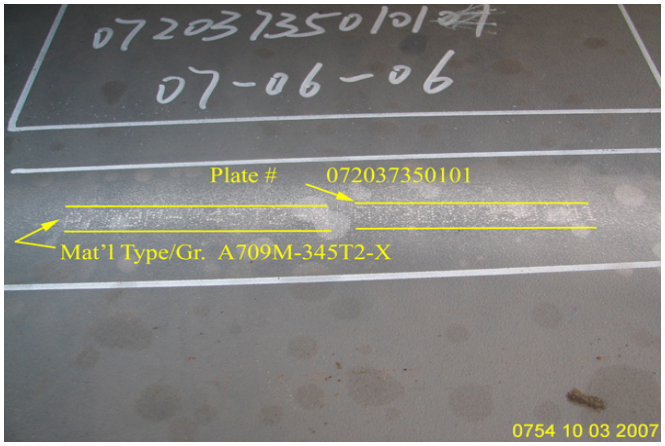
The Quality Assurance (QA) Inspector was present at the time requested to randomly observe welding and associated operations for the fabrication of the Mock Up. The QA Inspector randomly observed ZPMC Non Destructive Testing (NDT) Technicians Zhou Dongyun and Cai Xin Xin, utilizing the Magnetic Particle Testing Method (MT) to examine 100% of the full length of excavations in Complete Joint Penetration (CJP) Welds, Weld Joint (WJ) number 3 outside and WJ number 8 inside, attaching longitudinal stiffeners piece marks MP1013 and MP1010 to Skin Plate E Upper, Sub-Assembly MUSC-MA109 prior to performing second time weld repairs. Mr. Zhou performed the MT examination of WJ number 3 while Mr. Cai performed the MT examination of WJ number 8. The QA Inspector also performed 100% MT verification examination of the same excavations. There appeared to be no indications.

Caltrans QA Inspector Charlie Franco randomly observed welding being performed for the fabrication of the Mock Up at elevation 114. The QA Inspector randomly observed ZPMC qualified welder Chang Chuancang utilizing the Flux Cored Arc Welding (FCAW) process to perform a weld repair on the inside of WJ number 2 attaching longitudinal stiffener piece mark mp1010 of Skin Plate E Lower, to SA MUSC-MA 108. Mr. Chang was utilizing ZPMC approved WPS WPS-345-FCAW-2G(2F)-Repair. The QA Inspector observed ZPMC CWI Xu Bing monitoring weld parameters and writing them in chalk on the steel table. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 316 amps, welding voltage 30.9 volts with a travel speed of 304 millimeters per minute. Weld parameters appeared to comply with the above approved ZPMC WPS.

The QA Inspector observed ZPMC welding personnel placing heating panels on each side of WJ number 8, which attaches longitudinal stiffener piece mark mp1004-2 to Skin Plate D Upper, SA MUSC-MA113. The heating panels were being placed prior to performing weld repair.

The QA Inspector was present at the time requested to verify tracability of steel production plate in the steel plate storage yard. The QA Inspector was accompanied by Jeff Evans of American Bridge/Fluor Enterprises, a JV, along with ZPMC Quality Representatives Li Xiu Yang and Wu Min. The QA Inspector verified an 18 millimeter (mm) thick ASTM A709M-345T2-X steel production plate with the Plate number 072008876102 and ID number NG070516G015, and a 22 mm thick ASTM A709M-345T2-X steel production plate with the Plate number 072037350101 and ID number of NG070727G160. Each steel production plate was stamped with the applicable Plate number and the Plate numbers along with the ID numbers were written in several locations on each plate with paint stick. The Plate numbers of both the 18 mm and 22 mm thick steel production plates, matched the Plate numbers on the applicable Material Test Reports. The attached photographs provide additional detail. The photographs were retaken on 10-03-2007 because the ones that were taken on 10-02-2007, were not good enough to print out legibly on this report.





Summary of Conversations:

The QA Inspector asked ZPMC CWI Xu Bing why welding parameters were not being recorded during repair welding. Mr. Xu informed the QA Inspector that they didn't record them during repair welding, but they did monitor them.

WELDING INSPECTION REPORT

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer